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TPS 39
ASTHMA EPIDEMIOLOGY

1151 | Impact of omalizumab on healthcare utilization among patients with uncontrolled allergic asthma followed in Canadian clinical settings

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Introduction: In Canada, it is estimated that asthma affects 8.5% of the total population. It is the leading cause of hospital admissions, the third leading cause of work loss, and results in 146 000 emergency room visits annually in the overall population. Severe uncontrolled asthma contributes to about 50%-94% of asthma-related expenditures. Omalizumab is indicated for the treatment of adults and adolescents with moderate to severe persistent asthma whose symptoms are inadequately controlled despite optimized standard therapy. RCTs have consistently shown that administration of omalizumab is associated with fewer asthma exacerbations per patients translating into less health care utilization (HCU). Real world effectiveness data assessing the HCU in the Canadian context is limited.

Objectives: This study is a retrospective, pre-post cohort, observational study. The primary objective was to evaluate the impact of omalizumab on health care utilization (HCU) as assessed by the reduction in number of hospitalizations, emergency room (ER) visits, and oral corticosteroid (OCS) use in patients covered in Ontario. The number of night awakenings was an exploratory endpoint. Omalizumab was added for drug coverage to the Ontario Trillium Drug Program's Exceptional Access Program list on January 19, 2012.

Results: 148 patients (mean age 57.6; female 62.2%) formed the study population. Omalizumab was associated with a 74.4% reduction in the number of hospitalization (pre- vs post-omalizumab 12 month treatment period: 0.7 vs 0.2 $P < .001$). 89.9% of patients did not have any asthma related hospitalization. There was a reduction of 87.5% in ER visits (7.3 vs 0.9 $P < .001$), 66.2% of patients did not have any emergency visit. A 74.7% reduction of the number of high dose OCS by (4.23 vs 1.07 $P < .001$), 52.7% of patients did not need to take any courses of high dose OCS. The mean number of night awakenings / per week decreased from 6.1 (8.03) to 1.3 (2.79) following 12 month treatment with omalizumab.

Conclusions: Treatment with omalizumab of patients with persistent uncontrolled asthma is associated with a significant decrease in the number of hospitalizations, ER visits, oral corticosteroid use, and QoL parameters such as number of night awakenings in a Canadian real-world setting. The results are consistent with outcomes observed in previous large real-world trials such as the experience registry.

1155 | Non-utilization of medical rehabilitation before the occurrence of early retirement due to asthma bronchiale in Germany– prevalence and sociodemographic correlates

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Introduction: In Germany the statutory pension insurance fund covers the cost of rehabilitation treatment for employees whose working capacity is endangered due to health problems. The underlying principle called "rehabilitation over retirement" is the concept to avoid early retirement due to health problems by rehabilitation.

Objectives: The aim of the study is to describe the utilization of medical rehabilitation before the occurrence of early retirement due to asthma bronchiale in Germany from 2003 to 2014 and to investigate potential sociodemographic determinants. Analysis based on 20% random samples of administrative pension records from the Research Data Centre of the German Federal Pension Insurance, which include of all new cases of early retirement. We used logistic regression models to investigate the risk of non-utilization of medical rehabilitation during five years before the occurrence of early retirement. Age, sex, marital status, non-German citizenship, school and vocational education, professional career and annual income were considered as potential risk factors.

Results: Among all early-retired patients due to asthma bronchiale 46.7% (428 out of 917) did not utilized medical rehabilitation during five years before the occurrence of early retirement.

Risk for non-utilization was higher among men (compared to women, adjusted OR: 1.4; 95% CI: 1.0-1.9) and increased with age (60 to 64 years compared to 25 to 44 years, 2.8 [1.6-4.9]). Further risk factors for non-utilization were to be unmarried or widowed (vs married, 1.3 [1.0-1.8]), unknown or low educational level (vs median educational level, 1.7 [1.2-2.5]), as well as low annual income (1st quartile vs 4th quartile, 6.3 [3.9-10.2]).

Conclusions: Despite the importance of medical rehabilitation among patients with asthma bronchiale more than 46% of them obtained no medical rehabilitation during five years before the occurrence of permanent work disability, worst affected are deprived persons.